SAFETY DATA SHEET

Issuing Date 20-Jul-2012 **Revision Date** 10-Feb-2015 **Revision Number** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name HYDROXYLAMINE HCL

Other means of identification
Product Code(s) BDH9236-1KG : BDH9236-500G
UN-No 2923
Synonyms No information available.

Recommended use of the chemical and restrictions on use
Recommended Use For Laboratory Use Only. Not for Drug, Food, or Household use.
Uses advised against Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet
Company Address
VWR International, LLC
Radnor Corporate Center
100 Matsonford Road
Radnor, PA 19087-8660

Company Phone Number 610-386-1700
E-mail Address www.vwr.com

Emergency Telephone Number
Emergency Telephone Number CHEMTREC 800.424.9300
CANUTEC 613.996.6666

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

Emergency Overview

Warning

Hazard Statements
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure



Appearance White **Physical State** Powder **Odor** No information available

Precautionary Statements
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P281 - Use personal protective equipment as required
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P312 - Call a POISON CENTER or doctor if you feel unwell
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see supplemental first aid instructions on this label)
P322 - Specific measures (see supplemental first aid instructions on this label)
P330 - Rinse mouth
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P337 + P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable
Other Information
• Very toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Hydroxylamine hcl	5470-11-1	226-798-2	95-100	Not applicable

4. FIRST AID MEASURES

First Aid Measures

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician if necessary.

Inhalation Move to fresh air. If not breathing, give artificial respiration.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical
Fine powder is capable of creating a dust explosion. Containers may explode when heated.

Hazardous Combustion Products Nitrogen oxides (NOx). Hydrogen Chloride gas.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation, especially in confined areas.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Handle in accordance with good industrial hygiene and safety practice. Air sensitive. Hygroscopic.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Air and moisture sensitive.

Incompatible Products Strong oxidizing agents. Heavy Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydroxylamine hcl 5470-11-1	-	-	

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes. Safety glasses with side-shields.

Skin and Body Protection Wear protective gloves/clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Powder
Appearance White
Color No information available
Odor No information available
Odor Threshold No information available

Property	Values	Remarks • Method
pH	2.5 - 3.5 (50 g/l @ 20 C)	
Melting point/freezing point	152 - 157 °C	
Boiling Point/Range	No information available.	
Flash Point (High in °C)	No information available.	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available.	
Lower flammability limit:	No information available.	

Vapor pressure	No information available.
Vapor Density	No information available.
Specific Gravity	No information available
Water Solubility	No information available
Solubility in other solvents	No information available.
Partition coefficient	No information available
Autoignition Temperature	
Decomposition Temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available.
Explosive Properties	No information available
Oxidizing Properties	No information available

Other Information

Softening Point	No information available.
Molecular Weight	No information available
VOC Content	No information available.
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
Corrosive to metals.

Conditions to Avoid
Extremes of temperature and direct sunlight.

Incompatible Materials
Strong oxidizing agents. Heavy Metals.

Hazardous Decomposition Products
Nitrogen oxides (NOx). Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Toxic if swallowed Product is harmful by skin contact Irritating to eye, skin and respiratory system Sensitizer

Inhalation There is no data available for this product.

Eye Contact There is no data available for this product.

Skin Contact There is no data available for this product.

Ingestion There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydroxylamine hcl 5470-11-1	= 141 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Mutagenic Effects No information available.
Carcinogenicity No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydroxylamine hcl 5470-11-1	-	-	-	-

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic Toxicity Causes damage to organs through prolonged or repeated exposure. Suspected carcinogen.
Target Organ Effects Blood, Central nervous system (CNS).
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document . 600

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Hydroxylamine hcl 5470-11-1	-	-	-

Persistence and Degradability
No information available.

Bioaccumulation/Accumulation
No information available.

Chemical Name	Log Pow
Hydroxylamine hcl 5470-11-1	-

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations.

Contaminated Packaging Do not re-use empty containers.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Hydroxylamine hcl 5470-11-1	-	-	-	-

Chemical Name	California Hazardous Waste Status
Hydroxylamine hcl 5470-11-1	-

14. TRANSPORT INFORMATION

DOT

UN-No	2923
Proper Shipping Name	CORROSIVE SOLID, TOXIC, N.O.S. (CONTAINS HYDROXYLAMINE HYDROCHLORIDE)
Hazard Class	8
Subsidiary Class	6.1
Packing Group	III

IATA

UN-No	2923
Proper Shipping Name	CORROSIVE SOLID, TOXIC, N.O.S. (CONTAINS HYDROXYLAMINE HYDROCHLORIDE)
Hazard Class	8
Subsidiary Class	6.1
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	SARA 313 - Threshold Values %
Hydroxylamine hcl 5470-11-1 (95-100)	-

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydroxylamine hcl 5470-11-1	-	-	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Hydroxylamine hcl 5470-11-1	-	-	-

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Chemical Name	California Prop. 65
Hydroxylamine hcl - 5470-11-1	-

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydroxylamine hcl 5470-11-1	-	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Canada

WHMIS Hazard Class

E Corrosive material D1B Toxic materials D2B Toxic materials





16. OTHER INFORMATION

Issuing Date 20-Jul-2012
Revision Date 10-Feb-2015
Revision Note
No information available

Disclaimer

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regerd to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

End of Safety Data Sheet